EXHIBIT N

Genetic Engineering Advance Announced For Corn Plants

C112

CHICAGO (AP) — Two teams of researchers say they have produced genetically altered corn plants capable of passing on their newly acquired genes to the next generation, an advance that other scientists hailed yesterday as a breakthrough.

The technique should allow scientists to develop new strains of disease-, insect- and herbicide-resistant corn much more quickly than they can using traditional cross-breeding techniques, the researchers said.

Genetic engineering of corn, the largest and most valuable U.S. farm crop, has long eluded researchers despite their success with such crops as soybeans, cotton, tobacco and tomatoes, said Michael Fromm, a molecular biologist at an Albany, Calif., research center operated by the Agriculture Department and University of California at Berkeley.

Fromm headed a research group that also included Monsanto Co. scientists and which announced its findings Monday at a conference in Keystone, Colo. Researchers from DeKalb Genetics Corp., a seed company based in DeKalb, Ill., announced similar findings yesterday at the Colorado conference.

Both groups of researchers used a "gene gun" to shoot microscopic gene-coated bullets into corn cells, which were then grown into mature plants. Those plants were then fertilized with pollen and produced a new generation of seedlings which were shown to have the same genetic traits that had been engineered into their parents.

"The technology is now here to begin applying genetic techniques to corn," Fromm said in a telephone interview.

The scientists said it would be several years before genetically engineered corn products are ready for commercial marketing.

"It is the gene transfer technology that is important," said Catherine J. Mackey, director of the DeKalb research team, in a news release.

"This development is the result of many years of research by a team of scientists," she said.

Genetic researchers have been successfully engineering new strains of soybeans, tobacco and some other crops for several years, using a technique involving bacteria that do not work well with corn and other cereal crops, Fromm said.

He said the invention five years ago of the Biolistics gene gun at Cornell University paved the way for genetic engineering of corn.

In the USDA-Monsanto project, scientists transferred two genes: one that allows corn cells to grow in the presence of a growth inhibitor and another, derived from firefly genes, that causes corn cells to glow very faintly --too faintly to be seen with the naked eye.

The DeKalb scientists transferred a gene that makes corn cells resistant to a certain herbicide.

Alan Kriz, an assistant professor crop molecular genetics at the University of Illinois, said the findings did indeed represent a breakthrough.

Kriz said genetic engineering could produce plants resistant to pests and disease and nutritionally superior to today's varieties.

"Corn grain is deficient in certain amino acids," Kriz said. "We should be able to begin altering for those traits as well now."

Investor's Daily

Thursday, April 19, 1990